

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application:

LISTING OF CLAIMS:

1. (Currently Amended) A valve timing control device comprising:
 - a rotor,
 - a housing which can rotate relative to the rotor,
 - a projecting portion which is formed on the housing so as to slide on the outer circumference of the rotor, the projecting portion possessing circumferentially spaced apart ends,
 - a fluid chamber which is defined between the rotor and the housing,
 - a vane which is provided on the rotor and which divides the fluid chamber into a retard angle chamber and an advance angle chamber, and
 - a torsion coil spring for urging the rotor relative to the housing in the advance angle direction in which the volume of the retard angle chamber decreases and the volume of the advance angle chamber increases [and disposed in the twisted condition with a predetermined angle so as not to contact with the rotor and the housing frictionally],
 - a first hook portion formed on one end of a coil portion of the torsion spring,
 - a first engaging portion provided in a first receiving groove formed on a plate connected to the housing and engaged with the first hook portion, the first engaging portion opening toward a surface of the plate contacting the rotor, and

the first engaging portion being circumferentially positioned between the ends of the projecting portion.

2. (Original) A valve timing control device as recited in Claim 1, wherein the maximum twisted angle of the torsion spring is 360°.

3. (Currently Amended) A valve timing control device as recited in Claim 3 1, wherein ~~one end of the torsion spring is engaged with an first engaging groove formed on a plate connecting to the housing and the other end of the torsion spring is engaged with a second engaging groove formed on the rotor, and the first engaging groove is disposed at the approximately same position with respect to the approximately center portion of the projection portion which has a maximum circumferential width~~ the first engaging portion is disposed at approximately a circumferential center portion of the projecting portion.

4. (Canceled)

5. (New) A valve timing control device as recited in Claim 1, wherein the first hook portion extends in a radial direction of the coil portion of the torsion coil spring.

6. (New) A valve timing control device as recited in Claim 1, further comprising a second hook portion formed on an end of the torsion coil spring opposite the one end, and a second engaging portion provided in a second receiving groove formed on the rotor and engaged with the second hook portion, the second engaging portion opening toward a surface of the rotor contacting the plate.

7. (New) A valve timing control device as recited in Claim 6, wherein the second hook portion extends in a radial direction of the coil portion of the torsion coil spring.

8. (New) A valve timing control device comprising:

- a rotor,
- a housing rotatable relative to the rotor,
- a plurality of projecting portions formed on the housing to slide on an outer circumference of the rotor, each of the projecting portions possessing circumferentially spaced apart ends, one of the projecting portions having a greater circumferential extent than the other projecting portions,
- a fluid chamber defined between the rotor and the housing,
- a vane provided on the rotor and dividing the fluid chamber into a retard angle chamber and an advance angle chamber,
- a torsion coil spring urging the rotor relative to the housing,

a first hook portion formed on one end of a coil portion of the torsion spring,
a first engaging portion provided in a first receiving groove formed on a plate
connected to the housing and engaged with the first hook portion, and the first
engaging portion opening toward a surface of the plate contacting the rotor, and
the first engaging portion being circumferentially positioned between the ends
of said one projecting portion having the greater circumferential extent than the other
projecting portions.

9. (New) A valve timing control device as recited in Claim 8, wherein the
maximum twisted angle of the torsion spring is within 360° .

10. (New) A valve timing control device as recited in Claim 8, wherein the
first engaging portion is disposed at approximately a circumferential center portion of
said one projecting portion having the greater circumferential extent than the other
projecting portions.

11. (New) A valve timing control device as recited in Claim 8, wherein the
first hook portion extends in a radial direction of the coil portion of the torsion coil
spring.

12. (New) A valve timing control device as recited in Claim 8, further
comprising a second hook portion formed on an end of the torsion coil spring
opposite the one end, and a second engaging portion provided in a second receiving

groove formed on the rotor and engaged with the second hook portion, the second engaging portion opening toward a surface of the rotor contacting the plate.

13. (New) A valve timing control device as recited in Claim 12, wherein the second hook portion extends in a radial direction of the coil portion of the torsion coil spring.